



# Guidelines for MR Imaging of Sports Injuries

European Society of Skeletal Radiology  
Sports Sub-committee

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# Abbreviations and clarifications

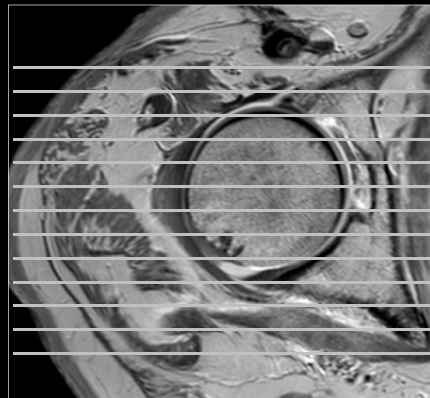
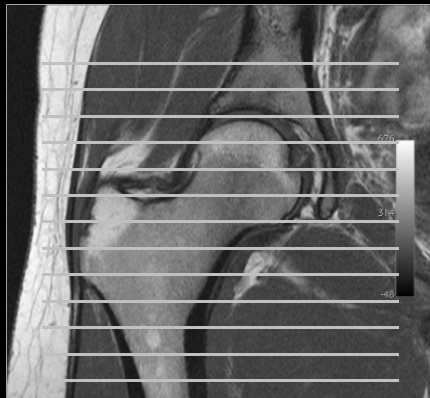


- Ax = axial
- Cor = coronal
- Sag = sagittal
- FOV = field of view
- PD = proton density
- TE = time to echo in milliseconds
- FS = fat suppressed
- Int = intermediate
- Int FS: this is a fat suppressed sequence with a long TR and a TE between that of a traditional PD (e.g. TE= 10-20) and a traditional T2 (e.g. TE=80-100). The advantage of this sequence is that the TE is short enough to maintain sufficient signal for visualisation of the anatomy (like a PD) yet long enough to be more fluid sensitive (like a T2)
- For STIR sequence, TI (inversion time) should be 140-150 at 1.5T



# Hip MR Arthrogram

- Patient is placed with the hips with 15° internal rotation, tape toes to maintain position
- Hip MR arthrogram should start with a coronal large FOV 30-40cm of the pelvis from the sacroiliac joints to the pubic symphysis (see routing pelvis protocol)
- This is be followed with lower FOV 18-20cm of the symptomatic hip
- AXIAL PLANES: anterior inferior iliac spine to lesser trochanter
- CORONAL PLANE: anterior to posterior acetabular columns
- AXIAL OBLIQUE PLANE, parallel to the femoral neck
- SAGITTAL PLANE: medial acetabular wall to greater trochanter





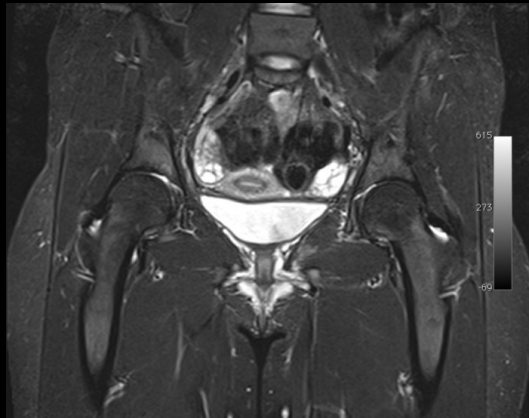
# Hip MR Arthrogram

	FOV (max)	Slice (max)	TE	Matrix (min)
<i>entire pelvis</i> Cor STIR	38-40 cm	6 mm	40-60	256x256
Ax T1	16 cm	3.5 mm	Min	256x256
Cor T1 FS	16 cm	3.5 mm	Min	256x256
Oblique T1 FS	16 cm	3.5 mm	Min	256x256
Sag T1 FS	16 cm	3.5 mm	Min	256x256
Sag or oblique Int FS	16 cm	3.5 mm	40-60	256x256
Radial T1 +/- FS (optional)	16 cm	3.5 mm	Min	256x256

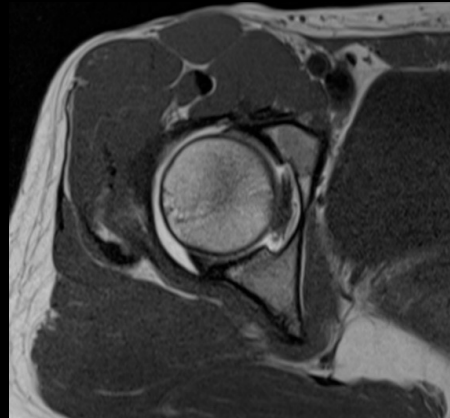
# Hip MR Arthrogram



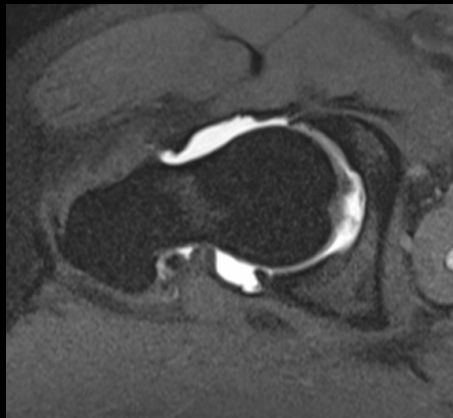
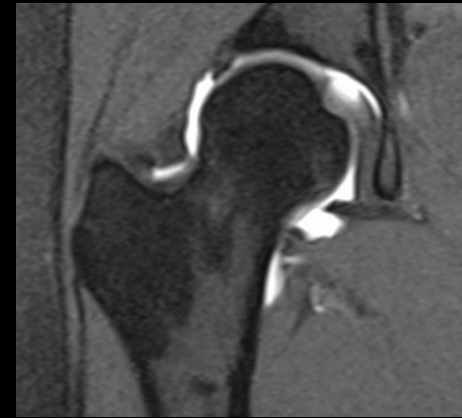
Coronal STIR



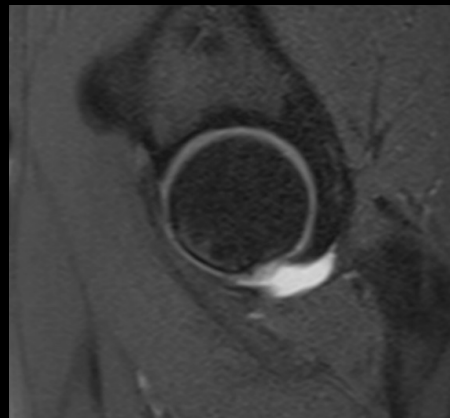
Ax T1



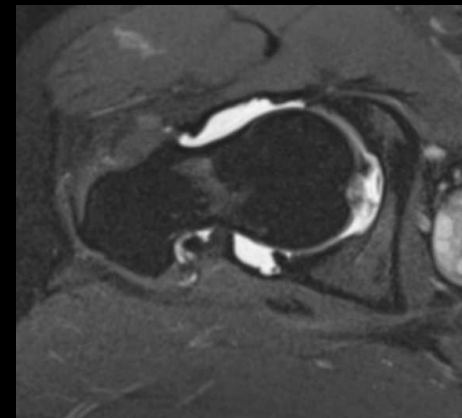
Cor T1 FS



Obl Ax T1 FS



Sag T1 FS



Obl Ax (or sag) Int FS